

THE PLEA OF HUMANITY

AND

COMMON SENSE,

AGAINST

TWO PUBLICATIONS:

ONE

WRITTEN BY "A PHYSICIAN" INCOGNITO,

ADVERTISED "THE STAMMERER'S HAND-BOOK,"

BUT ENTITLED

"A TREATISE ON THE NATURE AND CAUSES OF STAMMERING;"

AND

THE OTHER BY MR. YEARSLEY,

ENTITLED,

"STAMMERING, AND OTHER IMPERFECTIONS OF SPEECH, TREATED BY
SURGICAL OPERATIONS ON THE THROAT."

BY

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TO
THE MEDICAL PROFESSION,
AND
HOSPITAL SURGEONS,
THESE PAPERS
ARE RESPECTFULLY INSCRIBED,
BY
THE AUTHOR.



P R E F A C E.

OPERATIVE Surgery, an honourable branch of the Medical Profession, involves in its experience many interesting facts and speculations, which constantly conduct to useful and scientific inferences. Such operations properly belong to Hospital Surgery.

Being in the confidence of Surgeons of eminence and public celebrity, and knowing their opinion of the experiments on the throat for the removal of Impediments of Speech, the writer may consider himself privileged, as a Lecturer on the Science and higher branches of Practical Elocution, to enter, once more, upon a topic which has occupied his attention for a period of twenty years.

From early youth, the Author has been taught to reverence the Medical Profession, of which his father himself was a member, and he trusts that other associations have not diminished his attachment for it. His Treatise on Impediments obtained the favourable reception, and secured to him the kind advice of the late Sir Astley Cooper, and, subsequently, that of Sir Charles Bell, to whom, by permission, his Letters on the causes and cure of Stuttering were addressed.

Should the Author, in the opinion of some of his readers, appear sarcastic or severe, still he trusts that they will, on reflection, acknowledge that the assertions which he has controverted required discountenance and reproof. The ruinous and barbarian novelty of experimenting with the knife on the

tongue, the soft palate, and tonsils, for the cure of stuttering, will secure to the opponent of such severities the favour and patience of all parties concerned in philosophical investigation.

With respect to the writers who are impugned, one of them is known to the public, and his name is openly declared in the title-page. This gentleman is, of course, at liberty to confront the arguments and proofs in whatever mode he may think proper to adopt. The other writer has advanced his opinions *incognito*; and, possibly, the best advice that can be given to him, is still to keep his name a secret from his friends and the public.

Grove Hall, near St. Paul's, Larkhall Rise,
Clapham, Surrey, May 15th, 1843.

THE PLEA
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HUMANITY AND COMMON SENSE,
&c.

PRIOR to the publication of my Treatise on Stuttering, numerous opportunities had occurred to enable me to explain, on physiological and grammatical principles, the causes and cure of impediments of speech. Ample experience when lecturer in the higher branches of pronunciation and delivery, as successor to Mr. John Walker, the celebrated orthoepist, at Dr. Thomson's, Kensington, and many years of considerable practice as lecturer, in school establishments of first-rate eminence, as well as in families of distinction among the nobility, had afforded me ample scope for minute inquiry and diligent observation. I constantly felt, that questions respecting defective utterance had never been fairly and openly met by authors who had professedly written on the subject. In my first essay on impediments, I did not attempt to descant on the conflicting opinions of various writers who suppose that interrupted speech depends upon a relaxation, and of others upon a contraction of the *frænum linguæ*, nor of other authors, who are of opinion that it depends upon fissures in the soft palate, tumours on the base of the tongue, or its accompanying nerves; nor in my subsequent papers have I touched upon the systems of Dr. Arnott, or that of Dr. Mac Cormac, though I had written cursorily of these authors before; neither have I publicly thrown out any hint in opposition to recent speculations, that stuttering and stammering are occasioned by an elongated uvula and enlarged tonsils.

Some of these theories are innocent and perfectly harmless,

whilst the rest which advocate practical surgical operations, are prejudicial, and, in the highest possible degree, injurious to vocal utterance.

Ever since my thoughts have been directed to impediments of speech, from a simple lisp to complicated instances of stuttering, my pupils have derived indescribable benefit from thoroughly comprehending the nature and use of each element and its corresponding organ or organs of articulation: they have received advantage, also, from proper explanations about breathing; showing to them that, in common breathing, the actions of the lungs are nearly equal and regular, but that during the exercise of speech they are otherwise,—for in speech, the breath is drawn more rapidly and forcibly, and the expirations are slower and considerably more prolonged. My adult pupils have easily comprehended the able descriptions of Sir Charles Bell with respect to the distension and contraction of the pharynx, and they have felt the propriety of my explanations of the respiratory system of that distinguished physiologist.

In speaking, if the lungs be deranged in their actions and re-actions, then the larynx, the pharynx, the uvula and the soft palate, the tongue and all the organs of articulation, as well as the expression of the countenance, will become more and more affected. Now, whether such derangement be occasioned primarily by general nervous debility, which I very much doubt¹, and subsequently by some local affection immediately connected with the muscles of respiration as well as those of the throat, it is capable of proof, that if the will can be taught to have power over the larynx, the pharynx, the uvula, the velum palati, the tongue, and the lips of the mouth,—if the will, I say, can be taught to have power over these organs, as well as over the muscles of the face, &c., and the mind to have the consciousness of possessing that power, so as to be enabled to produce an easy and open passage for the air to pass to and from the lungs, then not only the lungs may be assisted in their actions and re-actions, but the organs of voice and enunciation would be in a ready and orderly train of movement for continuous vocal utterance.

From these considerations, and the elucidations which I

¹ Vide 1st Letter to Sir Charles Bell.

shall presently transcribe, I am at a loss to conceive how it could have entered into the minds of one or two medical men, that hesitations of speech can arise from lingual contractions or the reverse, or that fissures in the soft palate and uvula can engender stuttering. By "fissures," if we are to understand cleft, division, or opening, then it might be asked, "would not such opening rather prevent than cause stuttering?" But, for the moment, supposing that it would not prevent impediments, I should say both with respect to itself and all lingual imperfections,—if in a healthy subject there be a perfectly free passage for common breathing, then there would be also, under proper and efficient training, in a healthy subject, one for speaking. This argument applies equally to the systems of a closed glottis, collapsed lung, and to the ruinous surgical operations on the throat, which, in the sequel of these papers, shall be my object to show.

The writers on Impediments of Speech, who have not especially directed their attention to the elements of language, regard the spasms of the lips as peculiarly interesting, and even mysterious. Some persons, indeed, vainly conceive them to be the cause of stuttering. Moderate observation and reflection, however, would enable intellectual students to perceive that these and other affections are themselves occasioned by other causes connected with very simple but deranged operations. A stutterer wishing to say "many men of many minds," boggles at the labial, and involuntarily furls up the velum; the letter in consequence is not what was wished, the liquid, but the mute, labial; next, finding the breath and voice stopped, he dodges and boggles, backwards and forwards, dentals and labials, and gutturals, &c., *all mutes*, thus:—b. b. b. t. t. b. b. k. k., &c. till, at length, the pharynx or glottis, or, perhaps, both, be contracted,—till the throat be constricted, or the tongue cleave literally to the roof of the mouth. But there is nothing surprising in this. Neither is it remarkable that the lips of stutterers should be constricted, and sometimes apparently convulsed. Such writers, most of them medical men, seem, also, to be ignorant that the tip or front part of the tongue against the gums or front part of the hard palate, and the arched tongue against the back part of the hard palate, are occasionally and equally constricted. These are natural con-

sequences of the untimely furling up of the velum, converting liquids into mutes, and struggling, painfully struggling, to prolong and melt them into their annexed letters; when the mute enunciative organ, whichever it be, labial, dental, or guttural, is not easily governed;—the lips are constricted, or the tongue against the gums or the palate is involuntarily locked fast. It is not at all wonderful that such theorists, medical incogniti, who are not linguists, should fancy that an impediment of speech is to be removed by surgical operations, and that some, friendly to such experiments, should have attempted to explain the good effect of the removal of a wedge-shaped portion from the whole width of the back of the tongue, (!) by supposing that it produces a change in the nervous energy of the vocal organs, or that it acts by producing a powerful impression upon the mind!

It is affirmed by the author of the “Stammerer’s Handbook,” (alias) “A Treatise on the nature and causes of Stammering, with an exposition of the BEST methods of cure, medical, surgical, and educational,” that,—“It would fill a volume to enter upon the various theoretic opinions which have been advanced concerning this affection. The majority of them, emanating from professors of elocution, have had no pretensions whatever to a sound physiological basis; while many have been *perfectly* absurd and inconsistent, both with the known facts of the malady itself, and the healthy action of the organs of voice and articulation. With many of these writers the attempted definitions of the nature of stammering have consisted more of vague hints and surmises than any tangible propositions that could be seized on for the purpose of proof or disproof.

“Passing from these to strictly professional writers, the most generally received theory of stammering is, probably, that propounded by Dr. Arnott, in his *Elements of Physics*. He believed stammering to proceed from spasmodic closure of the glottis, during the attempt to articulate, and compared a stammerer attempting to speak, to the pouring of liquid from a bottle with a narrow neck, when it either comes in jets, or does not come at all. This ingenious idea is supported by the evidence of increased action in the larynx, and by the interruption caused to the respiration. The fact that stammerers can

sing was explained by the open state of the glottis during singing, and this was advanced as a strong support to Dr. Arnott's view of the nature of the disorder.

"The following circumstance can be adduced," replies the author of the "Stammerer's Hand-Book," "in proof of the incorrectness of this theory. In the first place, singing among stammerers, which appears at first view so convincing, can be explained in a different manner; chiefly by the power of measure, the slow pronunciation of the words of a song, and the soft manner of passing over the harsh consonantal sounds."

This, to say the least of it, is a very meagre explanation of the difference between singing and speaking, and of the reason why the stammerer can more easily sing than he can speak. Possibly, I may be permitted to add one or two hints.

Vocal utterance cannot proceed unless the actions of the larynx be exquisitely prompt, unless there be power over the vocal chords to render them suitably to the occasion steady or active. There must be such a muscular power over the vocal chords as to keep them in perfect readiness instantly to move, or instantly to be quiet. By analyzing the pronunciation of such a word as the following one, "satisfaction," my meaning, in this particular, will be easily comprehended. "*Satisfaction.*" However perfectly formed may be the voice, even in fluent speech, previous to any attempt to utter the word in question, the *first letter* is a *prolonged sibilant*, and the *vocal chords must be quiescent*, but they must be *instantly brought into action* for the *next letter*, which is a vowel; the *third letter being a MUTE SIBILANT*, the BREATH and VOICE ARE INSTANTLY STOPPED; the *fourth* is a *vowel*; the *fifth* and *sixth* letters are *prolonged sibilants*, when the *voice* is again *lost*: the *chords* are *again brought into action* for the *vowel "a,"* but *stopped* by the *mute sibilant "c"* (pronounced "k"), the *breathing is also stopped* at this *letter*; but for "t" (pronounced "sh"), the *breath* is *suffered to pass through the larynx* without *affecting the vocal chords*; and, *finally*, the *voice* is required for "io", and the nasal liquid "n" (pronounced "un"). *Here are eleven elementary sounds, and yet in pronunciation the whole word does not occupy more than half a second!*

This experiment shows, that, in fluent speech, the larynx must be exquisitely prompt in accommodating its chords to the

elements of a single word. Nor is this all: speaking sounds are inflexions. In a sentence, these inflexions are considerable in number, and require to be given in quick succession: they are more complicated than any combination of notes in music, and can be produced only by re-action of the lungs and the rushing current of breath, and correspondent actions in the larynx. In singing, as the continuity of note is dependent upon the proper and efficient delivery of the vowels, and as the delivery of the vowels requires the passage from the lungs out at the mouth to be open, the organs of breath, voice, and enunciation seem to be in habitual training and readiness for orderly action. An individual musical note is not susceptible of the slightest elevation or depression of sound; thus each note, however comprehensive as to time, is of the same quality from the beginning to the end; hence, in singing one lengthened musical note of the same quality or strength, neither the diameter of the glottis, nor the tension of its chords, nor the condition of the pharynx, is altered; but speaking voices are evanescent inflexions. Speaking voices or inflexions are emitted through the glottis at the pronunciation of primary or secondary accents; they slide either from a low note upwards, or *vice versa*,—constantly leaping or jumping from one note to another; the voice being articulated by the affluent breath, as it is differently affected by the organs of the mouth. If these varieties are to be produced only by correspondent actions of the larynx, and if such correspondent actions in speech are more complicated than those which are required in vocal music, we are furnished with *another reason* why the stammerer can more easily sing than he can speak².

“In some stammerers,” continues the same anonymous writer, “vowel sounds are freely pronounced, the impediment consisting in an inability to proceed from a vowel sound to the pronunciation of a consonant. Thus, in saying ‘a man, a bird,’ there are many stammerers who can produce the sound of ‘a,’ for which, according to Dr. Arnott, the larynx is open, but cannot, with the utmost endeavour, put the lips, at once, in the position required for the formation of ‘m’ or ‘b.’ Here the lips are palpably the parts at fault, and not the larynx;

² Vide pages 46 and 47.

the sound of a, a, a, a, can be continued without interruption, till the breath is exhausted."

The author of the "Treatise," &c. will excuse the following very important emendation. The lips are *not* palpably the parts at fault. It is the *velum pendulum palati* which is in error.

"There is also occasionally seen another kind of stammering," continues the theorist, "in which the difficulty consists in the pronunciation of labial letters; but here, unlike the former case, the lips can be closed as in forming 'm' or 'b,' and no sound is produced, BECAUSE there is a temporary impossibility to part the lips; still *during the efforts the breath issues forcibly from the nostrils*. In the first, the individual struggles with the mouth wide open, and a continuous vowel issuing from the larynx, but there exists at the time an impossibility of combining it with various other sounds. In the second, the mouth is closed; but as a full stream of breath passes from the nostrils, the larynx must be open as in the former case. In neither of these instances, could the larynx by any possibility have been closed; so that these facts are directly opposed to the supposition that closure of the larynx is the essential cause of stuttering."

A little grammatical or elocutionary, as well as a little more physiological, training, would have enabled the writer to comprehend the points in question; viz. the *causes with respect to sound*, and to the *impossibility of parting the lips*. In the first place, though "m" and "b" are labial letters, one of them is a *nasal liquid*, the other a *middle mute*, so that in the case instanced, the reason why sound is not produced, though the breath issues forcibly through the nostrils, is because the ligaments of the glottis, the vocal chords, are quiescent; and the reason why the lips refuse to separate for "b" is because the breath DOES *issue through the nostrils*. For the utterance of this letter, the *velum* should furl up to prevent an escape of vocalized breath in that direction, and subsequently to the murmur above the larynx, peculiar to the middle mute letters, the *pharynx* SHOULD contract; and the reason why the lips are apparently unmanageable, and cannot separate for "m," is because there is an *UNTIMELY contraction of the pharynx*³.

³ Vide page 24.

If stuttering is occasioned by a closed glottis, collapsed lungs, or an elongated uvula and enlarged tonsils, then the utterance of all the letters of the alphabet would probably be equally impeded; but from the practice and acknowledgment of stutterers, and from the experience of all persons who have watched and observed stutterers during their efforts to speak, it may be safely affirmed that such is not the case; for some letters are articulated with considerable ease and comparative facility, while others are not pronounced without painful interruptions of breath and voice, and without uncertain, confused, and contrary articulations, accompanied by distressed bodily contortions. Excepting in those cases which are confirmed and inveterate, such words as Ionian Isles would be spoken with tolerable ease; but ask the stutterer to alter them to Itolian Kiles, he would be instantly embarrassed; next to shorten the vowel *ō* to Itōlian, he would be still more puzzled; and finally, to alter "*l*" to "*t*," lengthen the penultimate, and place the accent upon it, Itotīat, he would be encompassed with difficulties which would seem to be almost insurmountable. Upon the same principle he might be able to utter the word "satiāte;" but ask him to repeat, "satiety," his organs would be locked fast; during every effort to pronounce "*t*," so circumstanced in respect to accent, the breath and voice would be uniformly stopped: but, nevertheless, in fluent speech, the glottis must be open, for the bag of the pharynx, preparatory to the utterance of the letter, would be distended. This was satisfactorily explained by the late Sir Charles Bell, to be the fact in the delivery of the middle mute consonants⁴.

In fluent speech, that no part of the passage from the lungs to the mouth is closed, immediately before the articulation of the letters "*b*, *d*, and *g*," is evident from the subdued voice which may be heard when the bag of the pharynx is filling, *i. e.* when, previous to the utterance of the letters, a murmur is distinctly heard above the larynx. In my second letter, it is affirmed, that, in preparing to articulate "*b*," if the muscles of the cheeks be relaxed, while the air is passing up into the mouth, the lips for a second or so (by way of experiment)

⁴ Vide page 24.

being closed, the murmur will be proportionately lengthened, till the cheeks be fully distended, when it will of necessity cease. Once more, although there is no murmur previous to the utterance of the correspondent soft mutes, P, T, and K, still inaccurately articulating these letters, there is every reason to conclude, that the larynx is not closed nor any part of the trachea; but that like “*b, d, and g,*” the pharynx is distended, and filled with air. This inference may be safely drawn from the essential grammatical characteristics of the mute consonants in general, there being no discernible distinction, in pure vehement whispering between “*b, d, and g,*” and “*p, t, and k,*” so if the cheeks were to be distended, prior to a lengthened effort to articulate “*p,*” they would be uncomfortably filled with breath; but still in making the experiment, there would be no murmur while the bag of the pharynx is filling, because the ligaments of the glottis, the chordæ vocales, are quiescent.

Suppose an hesitation or impediment to occur at the words “*since, such, satiate,*” or at any word beginning with “*s,*” the stutterer might say *s. s. s.*, (not “*ess, ess, &c. i. e.* not prefixed by a vowel, which is the mere name of the letter) he would continue hissing *s. s. s.*, but could not be able to utter the annexed succeeding vowel. Now in such an instance of hesitation, the glottis and the passage to the mouth with the “*isthmus faucium*” must be open, otherwise the hissing “*s*” would not be produced and repeated. The same remark is equally applicable to the simple aspiration “*h,*” and also to every one of the breath or sibilant or whispered prolonged consonants, the glottis and the passage to the mouth must be open.

As far as my own individual experience has conducted me, I am satisfied that the simple closing of the glottis, not occasioned by a deranged action of other organs, will never produce stuttering. Independently of other considerations, I am led to this conclusion, upon remembering and reflecting on a case which was presented to my observation twenty years ago, in a clergyman of Corpus Christi, Oxford⁵. From a spas-

⁵ The author alludes to the late Dr. Jenkins, an elegant scholar and affectionate friend, the author's early patron and kind adviser.

modic closing of the glottis, unconnected with any deranged action of the organs of speech, the above individual was unable, frequently for two or three seconds, when speaking in public to utter the first letter of the leading word of a sentence, such for instance as the first vowel in "Almighty," or the diphthong in "our" at the commencement of the second service, in the liturgy. He said, that it was impossible to describe the excessive nervousness and extreme anxiety which the pause and impediment occasioned, lest he should be unable to proceed in the duty; but never in any instance, public or private, of which I ever heard, did he manifest the slightest tendency to stutter; nor was he in the habit of repeating a letter, or of stammering for a word to express his meaning: neither was the expression of the countenance indicative of stammering or stuttering; the lips and mouth had perfectly freedom of action; his flow of words were exceedingly copious, and he was one of the readiest, most gentlemanly, deliberate speakers I ever heard. Whence I conclude, that the impediment was occasioned by a simple closing of the glottis. In this case, according to my instructions, the glottis was opened, and the impediment removed, first, by taking breath fitly and on proper occasions, and, secondly, by dividing sentences into oratorical portions.

On the other hand, it is easily conceded that a closed glottis occasioned by the deranged actions of other organs will engender stuttering. The natural method of opening the glottis is that of breathing; still it has been shown, that though the glottis be open, the stutterer may not be able to speak.

Were all the elements of language uninterrupted, were each letter continuous, like liquids, vowels, and prolonged sibilants, I am inclined to believe that there would be no instance of stuttering; but as language itself is composed of mutes also, i. e. articulated voices, interrupted sibilants, dampers of audible sound and stoppers of breath—and as the organs of speech, though particularly and admirably well adapted for the purpose, are, nevertheless, liable to misapplication, or derangement, so the accuracy or inaccuracy of speakers, their fluency of articulation, or their defective and interrupted utterance, is altogether dependent upon the proper or improper use, the adequate or inadequate application and orderly exercise of

each and every organ of breath, voice, and enunciation; viz. the lungs, the larynx, the pharynx, the uvula, and velum palati (the organ which closes the nasal passage), the hard palate, the tongue, the gums, the teeth, and the lips⁶.

The elements of utterance, then, vary according to the nature and action of the organs which are requisite to produce them: some of them are interrupted, and the rest are continuous. All the vowels are audible voices, and, of themselves, are capable of being made syllables, and all the consonants are either whispering or audible, pre- or post-fixes to vowels, and of themselves are said to be incapable of being formed into syllables.

Though a vowel, in consequence of its not meeting with interruption from any of the organs requisite for the utterance of a consonant, it is an easy letter to pronounce, yet the confirmed stutrer is apparently unwilling or unable, though comparatively easy, either to lengthen it, or to alter the position of the mouth for the articulation of another. The cause of this difficulty has been physiologically alluded to in my Letters to Sir Charles Bell.

Some time ago, I too readily yielded to the opinion of Dr. Arnott, that "during speech, the glottis needs never be closed." For five years I have entertained a different opinion, and I am now satisfied, in opposition to that popular writer, that during speech, even in fluent speech, the glottis is repeatedly closed; not only at every pause, when a fresh supply of breath is not required, but also at the articulation of every vowel which has not a consonantial prefix. So that according to this doctrine, the glottis is also an organ of articulation, similar in effect to the tongue which articulates notes on the flute, and renders them distinct and staccato. My reason for believing that it is not the pharynx that is closed, at the posterior nostrils, to prevent the needless escape of the breath, at each rest or pause, or the articulation of a vowel, is this:—because there is no murmur or sound heard immediately previous to a violent effort to utter it, which is satisfactorily proved to be the case in every instance previous to the uttering of a middle mute. In confirmed stuttering, it is possible, I conceive, for

⁶ The Author's Letter to Sir Charles Bell, p. 21.

the glottis to close, as it were, by anticipation, *i. e.* without waiting for the notice, or warning, or contraction of the pharynx⁶.

The reason, therefore, why the stutterer cannot easily alter the position of the mouth to utter a fresh syllable, and that a vowel, *is*, in the first place, because the glottis, for the moment, is divested of the power of suddenly opening and acting as a prefix to the voice, and combining its murmur with the action of the pharynx, similar, as I have this moment said, to the tongue of a flute player, which acts as a prefix to a note, and renders it articulate and distinct⁷; and because the contraction of the glottis, in this instance, resembles that of the velum, which acts as a preventive to the escape of the breath and voice for the utterance of a mute; and because the breath and voice being thus stopped, the actions of the lungs, and the ligaments of the glottis, become deranged. Now it is easy to conceive that, in consequence of such derangement, neither a vowel nor consonant can be uttered; that is to say, unless there be a harmony of action, or motion and force, with regard to the lungs, the glottis, the lips, the tongue against the palate, the distension or contraction of the pharynx, the furling up or hanging down of the velum palati, a word cannot be uttered. In complicated instances, more slowness of speech would be of no use! Unless the organs be in a proper train of action, except there be one uniform consent of action, between the organs of breath, voice, and enunciation, between the organs of the body and the faculties of the mind,—rhythm and length of syllables would be of little avail to the improvement of the stutterer, and the permanent removal of his impediment.

Though all consonants and combinations of consonants, however, are said to be incapable of themselves of being formed into syllables, still some of them, such as “*l*, *m*, *n*, *r*, *v*,” “*th*,” as in “*thee*,” and “*s*,” as in “*pleasure*,” appear to

⁶ Vide page 24.

⁷ In the instance of having commenced the pronunciation of a diphthong the mouth can easily alter its position to complete the whole;—thus as *oi* in “*void*,” if the stutterer can utter *o* as in “*or*,” he can easily join it to “*i*” (*e*)—because the latter part of the diphthong has no prefix, but “*o*” and “*e*” are joined together by crasis.

be more of the nature of syllables than others. These the stammerer can more easily manage than the rest. Some of the consonants, double as well as single, differ only in respect of the breath and voice,—such as B and P, D and T, G, as in “good,” and K, Z and S, V and F, Dsh (j or g as in “gem”) and tsh (ch, as in “cherry”), Zh (s, as in “pleasure,” and “sh,” as in “shame”), “th” (as in “thee”) and “th” (as in “thought”). Now, in correctly uttering each of the above pairs of mute consonants, viz. B and P, D and T, and G and K, the organs of enunciation are the same; the only difference between these letters is that the *vocal chords are or are not affected by the breath*. These the stammerer finds great difficulty in articulating, because they are of such a power as to damp or stop the breath and voice; they have not, in the slightest degree, any power of prolongation, and, therefore, cannot melt or coalesce with any letter, whether vowel, liquid, or consonant. Open, however, the nasal passage, without altering the position of the organs which are requisite to articulate the mute consonants, and then the liquid sounds “*m, n, and ng,*” will be produced. The difference between these letters is most important for the stammerer fully to comprehend. To begin with *B* and *P* and *M*. It is possible to prolong or continue *M* as long as a vowel, when its sound or note may be compared with any note of a musical scale within the compass of the speaker’s voice. *M*, viewed as a sound, may, in one sense, be called a vowel, issuing through the nostrils instead of the mouth; and in the instance of *M* and *B* or *P*, the mouth is shut, but while the nasal passage (the mouth being closed) is open for *M*, it is closed for *B* or *P*; and as the mouth and nasal passage are closed for *B* or *P*, the breath and voice must of necessity be stopped. It is from the murmur in the pharynx, or not, and upon the explosion of the voice, that *B* or *P* is found to be a vocal or whispering consonant. There is precisely the same resemblance, and also difference, with respect to *D* or *T* and *N*. The vocal chords are ready for action at *D*; but they are steady, or not ready for action, at *T*. In the above cases, and in all instances of *D*, *T*, and *N*, the front part of the tongue is applied to the gums, so as to prevent the issuing of the voice, or breath, through the mouth. In the instance of *D* and *T*, the nasal

passage is closed, but it is open for *N*; the only difference, therefore, between *D* and *N*, is the closing of the nasal passage for *D*, and the opening of it for *N*; and the only difference between *T* and *N*, with respect to the *organs of enunciation*, is the closing of the nasal passage for *T*⁸, and the opening of it for *N*. In *preparing* the organs for the articulation of *D* or *T*, we discover that the nasal passage is closed, and the front part of the tongue is applied to the gums, round the front part of the hard palate, so as to prevent an escape of breath or voice through the mouth or nostrils. The organs so prepared for *D* or *T*, let us suddenly open the nasal passage; or, in other words, the organs being prepared for *D* or *T*, let us, instead of articulating those letters, permit first the breath, and afterwards the voice, to issue through the nostrils, and suddenly utter the word *No*. The experiment will show *D* to be a vocal, or what the Greeks call a middle mute, and *T* a whispering, or what the Greeks called a soft mute; for in the one case, the word *no* will be uttered in an audible or loud voice; but in the other, it will be said in a soft whisper *D(no)*, *T(no)*⁹. The guttural mutes *G*, as in *good*, and *K*, with their corresponding nasal liquids *ng*, if submitted to experiment, will discover themselves to be related to each other, in the same particulars of *voice*, *breath*, and the *nasal passage*, as the rest. For the utterance of hard *G* and *K*, the dorsum of the tongue is applied to the palate; and for the utterance of the nasal liquid *ng*, the organs of articulation for hard *G* and *K* are to be united, and the nasal passage opened. There is, however, a difference in the use of "*ng*," and "*m*" or "*n*." *M* and *N* are both pre- and post-fixes to vowels: "*ng*" is only a post-fix to a vowel; but very frequently the utterance of the stutterer is considerably impeded, when a consonant, liquid or mute (but especially a mute), precedes or stands as a prefix to a vowel; upon such occasions the speech of the stutterer is constantly interrupted. Instead of "*man*," he would probably say, "*B-b-b-a-a-n*;" but the nasal liquid *ng* never coming

⁸ Be it recollected that the vocal chords are quiescent for *T*, but active for *N*.

⁹ This experiment may be tried also in such a word as "*onto*," or "*ondo*;" if "*on*" be said in a whisper, the chords will be quiescent for "*to*;" if in a loud voice, they will be prepared for "*do*."

before, but always after a vowel, in the same syllable, it is not so likely to affect the utterance as “*m*” or “*n*.” Let us, however, pursue these questions respecting the mutes one step further. From a habit of improperly closing the nasal passage, and thereby converting *M* and *N* to *B* and *D*, and subsequently to *P* and *T*, the stutterer involuntarily repeats the letters “*B, P, T, and D,*” themselves, when they stand as prefixes to accentuated vowels, “*B-b-b-b, P-p-p,*” &c., till, at length, he fall into the same error in respect to hard *G* and *K*; and it may be safely affirmed, that when a child is so far impeded in his speech as to find difficulty in uttering the mutes *G* or *K*, as a prefix to a vowel, his speaking will very soon suffer in other respects; his utterance will be speedily interrupted by a defective action, also, in either the larynx or the lungs, or perhaps ultimately in both of them. This will inevitably follow, as a natural consequence, unless speedy means be used to induce an easy, regular, and prompt action of the velum and pharynx. Confirmed in his impediment, and unable to pronounce the guttural mutes *G* and *K* in the proper manner, and constantly repeating, or struggling to give *prolongation* to them,—or, in other words, striving to convert them into *vowels*,—the stutterer is distressed with excessive difficulty of breathing, his bodily or mental sufferings are great, and exhibit to the eye of the beholder painful contortions of countenance, and to all outward appearances, spasmodic affections, at the opening of the mouth from the throat. In such an inveterate instance, the *nasal passage*, be it taken into consideration, *is closed*, the arch of the tongue cleaves to the back of the hard palate, and finally the dorsum to the soft palate, till by degrees, during an effort to speak, *there is not the least opening for the issuing of the voice or breath.*

It is maintained, therefore, that in confirmed stuttering, upon attempting to utter any letter in the alphabet, even a vowel, the mutes constantly obtruding themselves, as it were, the organs are closed, and that, notwithstanding every endeavour to the contrary, they continue obstinately locked fast; and thus do the organs of enunciation oppose every laborious effort of the speaker to acquire vocal utterance. Hence the pantings, sudden interruptions, similar to the grief-like sobbings of a school-boy, under the corporeal chastisements of a

merciless preceptor. It is hardly requisite to add, that the longer and oftener such defective actions as these are permitted to affect the larynx and lungs, the more inveterate will be the case, because every contrary or opposing action of the *velum pendulum palati*, or organ which closes the nasal passage, is calculated, first, to restrain or to influence improperly all the other organs; and, afterwards, from the constant interruptions of the breath and voice, to occasion inordinate and mischievous use either of the lungs or the larynx. The consequence must be, that the sufferer, unless prevented, will proceed step by step, until he be confirmed in complicated, defective, and contrary adjustments of all the organs of speech, breath, voice, and enunciation.

Thus it is seen that from the untimely furling up of the *velum pendulum palati*, the labial liquid “*m*” is converted into “*b*,” the labial mute; and upon attempting to accomplish what is impossible, viz. to give prolongation to the mute letter, the lips at one time appear to be obstinately closed, and at another constricted by spasm; again,—from the furling up of the velum, the dental liquid is converted into “*d*,” the dental mute, and as before, in striving to prolong it, the tip or the front part of the tongue against the gums, or front of the hard palate, is, seemingly, locked fast or convulsed: once more,—from the same untimely action of the organ which closes the nasal passage, the liquid sound “*ng*,” or what the Greeks term “nasal gamma,” is changed into “gamma,” or hard “*g* ;” and upon attempting to prolong gamma, like nasal gamma, i. e. upon attempting to prolong the former “*g*” in “aggle,” like “ang” or “an(*g*)” in “angle” (not *an*-gle but *an*(*g*)gle), the back part of the tongue is violently constricted with the hinder part of the hard, and finally the soft, palate. It has also been shown, that in all these instances the bag of the pharynx, as well as the glottis itself, would be contracted. The question returns, what process is to be devised to cut the knot of entanglement, and to effect a cure?

Some medical men suppose that stuttering is occasioned by lingual relaxation, while others, supporting an opposite doctrine, imagine that the division of the *frænum* would be advisable and highly beneficial; while others, again, advocating the former system, speak of what happened in the prac-

tice of a celebrated French surgeon, “ who, fancying himself justified in concluding that interrupted speech arises from lingual contractions, divided the frænum;—immediately upon which the tongue rolled back into the throat, and actually killed the patient by suffocation !” It is conceded by another surgical experimentalist, that Dieffenbach’s *dangerous operations* are occasionally more *beneficial than even his own*, inasmuch as that a large piece cut from the back part of the tongue would increase the area of the fauces, in some cases, perhaps, more effectually than by operating on the uvula and tonsils, or by snipping the soft palate, or by dividing the palatine arches ! In ascending the graduated scale of scientific operations and remedies, we hear of surgical experiments, with reference to certain classifications of impediments ! In the guttural variety of stammering, the uvula is excised, or now,—proceeding with a little more caution,—should the tonsils exhibit any signs of disease, they also are to be removed : when the stammer is labial, a seton is inserted through the frænum of the lower lip. If it be supposed that the tongue is chiefly concerned in the impediment, a seton is applied to the frænum linguæ ; and when the larynx is principally affected, moxas or blisters are applied over the pomum Adami !!!

Having pointed out the fallacy of the theory of Dr. Arnott, and partly that of Dr. Mac Cormac, and other theorists, known as well as unknown to the public, it shall be my next endeavour to give my opinion of the views of one more, and upon his practice of operating upon the uvula, tonsils, and soft palate.

This gentleman affirms that the uvula performs no other known office than to assist in separating the nasal cavities from the throat at the moment of swallowing, vomiting, &c. ; and that “ in cases where the nasal bones have been destroyed by disease, so that the uvula could be observed, it has been seen to move during the articulation of words.” It is added, that “ Professor Müller states, that the soft palate and uvula are raised during the production of the higher notes in singing.”

To this paragraph it may be said, if the uvula *really* assists in separating the nasal cavities from the throat, why should

it not act, as an organ to prevent the escape of breath or voice through the nostrils, during the utterance of what grammarians call the mute consonants? With respect to the remark of Professor Müller, it may be true as far as it goes, but certainly the *velum pendulum palati* and its promptitude of action are intimately connected with UTTERANCE. "In a person whom I had the pain of attending for a long time after the bones of the face were lost," I quote from a paper in the Philosophical Transactions, A. D. 1832, of Sir Charles Bell, "and in whom I could look down behind the palate, I saw the operation of the *velum palati*. During speech, it was in constant motion; and when this person pronounced the explosive letters, the velum rose convex, so as to interrupt the ascent of breath in that direction; and as the lips parted, or the tongue separated from the teeth or palate, the velum recoiled forcibly."

"It is during the distension of the bag of the pharynx that the breath ascends and produces the sound which proceeds, and gives the character to some of the explosive letters, *et seq.*,—and the pharynx after being distended, contracts and forces open the lips." pp. 312, 313. Philosophical Transactions, A. D. 1832.

As the organ which closes the nasal passage is of so much importance as to stop the breath and voice in that direction, it is clear that the removal of it by disease or by surgical operation would be the destruction of a very important organ; connected with distinctness of articulation in the vocal, sibilant, labial, palatine, dental, and guttural mutes; whether or not all stutterers would be uniformly released from their impediment by an excision of any part of it, (I mean of the uvula, supposing it to assist in closing the passage,) is a question of great doubt. Possibly in some cases, there would be amelioration, and perhaps, in an isolated case or so, a cure (I very much doubt it); but to remove the uvula, "snip" materially the soft palate, and "divide the palatine arches," would be a remedy as bad as the disease; for the nasal, sniffling articulation of a person divested of the curtain, or soft palate and uvula, would be as unpleasant, though not quite so distressing, as stuttering, stammering, or any complicated hesitation of speech. If the uvula alone, according to Herries, in "The

Elements of Speech," or according to Dr. Holder, in "The Philosophy of Speech," ever *unassistedly* performs this office, it must, I conceive, be from some anormal development, because it is pretty well agreed that it is the curtain or soft palate, *with the uvula, possibly*, which closes the nasal passage, during the utterance of the mute letters. Ten years ago, I addressed the Editor of the Lancet (sub sig. Ψ) on the subject, and mentioned a case, where there was natural deficiency with respect to the uvula, and where the individual uttered the mutes perfectly. I have seen others, from whom the uvula had been *removed*, not for the cure of interrupted speech, but for cough and disease in the part, and where the mutes were distinctly pronounced. Therefore I know that the destruction of the uvula in some cases is not detrimental to articulation: still, on the other hand, though its removal might afford some sort of relief in a solitary instance, yet I cannot bring my mind to believe, that there can ever be any immediate necessity for the operation at all, for the cure of stammering or stuttering,—*except in some one very peculiar case*. However, assuming that it is the office of the uvula to assist the soft palate in closing the nasal passage, I can suppose that if it be excised, nature might give increased action and energy to the soft palate. This supposition may be tolerably well borne out in the following case, where there was a deficiency in respect to the uvula and to part of the soft palate, *i. e.* a fissure or opening from the middle or higher part of the arch, extending to the beginning of the hard palate. The patient was a pupil, Master G——, eight or ten years ago, at Eagle House, Brook Green, a school of eminence, west of London. This youth had the power, by means probably of the glands or some action of the remaining part of the soft palate, to utter the mute consonants, but not without a nasal articulation. In the instance of this young gentleman, in order that the deficiency might be supplied, a surgical operation was recommended. Sir Benjamin Brodie dissuaded the party from consenting to it. In consequence of the advice of this great and eminent surgeon, the attempt was not made. Admitting, however, that the operation had been successfully performed, and that the part of the curtain or soft palate, which was wanting, could have been supplied, and that the whole of the

uvula could have been formed, I feel assured that no benefit in regard to articulation would have been derived from it, unless muscular power could have been given to the produced organ to act upon the nasal passage, to prevent an escape of breath and voice through the nostrils, during the utterance of the mute letters ¹.

Now in this case there was neither stammering nor stuttering ², and for a very simple reason; because the elements of utterance were, necessarily, all continuous. Persons who merely substitute letters, but whose enunciation is continuous, with an utterance, nevertheless, defective and thick, confused and complicated, such persons do not stutter, I apprehend, so long as they continue to have power and command over the organ which closes the nasal passage, and over those which are essential to the fluent utterance of the mute consonants: and I strongly suspect that those individuals whose structure is imperfect in respect to the organ which closes the nasal passage, and to the hard palate and lips, NEVER stutter; which is a powerful argument in favour of my doctrine, respecting the mute letters, and the *velum pendulum palati*. This doctrine was explained to a late eminent and distinguished surgical operator, who remarked, jocosely, "Why, then, Sir, to cure stuttering, you have only to bore a hole through the soft palate into a cavity of the nostrils, and the object is achieved!" "Certainly; but then, Sir, it must be remembered that the remedy would be as bad as the disease. Allow me," continued I, "to propose the question—Have you ever met with an instance in any individual, where there was deficiency in respect to the soft palate, who stuttered?" Sir Astley Cooper replied, "I never have." I put the same question to Sir Charles Bell, and he gave me the same answer.

From the foregoing analysis of the elements of utterance, and the true physiological descriptions and uses of their appropriate organs of speech, turn we now to the pamphlet entitled, "Stammering and other Imperfections of Speech, treated by Surgical Operations on the Throat." We read, page 18,—

¹ Vide Letters to Sir Charles Bell, p. 29. See also, at the bottom of the same page, the remark respecting the use of an artificial or gold palate.

² Though, according to the opinion of one or two medical men, hesitations of speech are occasioned by fissures in the palate.

“Will the spasmodic closure of the fauces, by the obliteration of the isthmus, account for the singular phenomena of stammering?” “There are many circumstances,” continues the writer, “which certainly seem to favour such an opinion. In the worst cases of stammering, I have observed that during the attempt to speak, they can in a moment part the lips, if they are content to do so, without the utterance of sound.”

The writer, I presume, means to say, that whenever the stammerer uses the *muscles of respiration properly*, he can open the lips, *i.e.* he can do so when the impediment or cause of prevention is removed.

“Stammerers are able to sing, which I conceive to be owing to the open state of the throat in singing: and they can also talk or recite, if they will use the singing voice.”

Singing voices are monotonous, speaking voices are inflexions³. The writer, therefore, means that the stammerer can sing, if he use the singing voice!!!

“Moreover, the muscular movements of a confirmed stammerer are such as we might expect to find in an obstruction to a canal lined with mucous membrane. It is well known that in the muscular spasms which occur in hernia, coughing, sneezing, vomiting, &c., the phenomena are only to be explained by referring them to the reflex action produced by obstruction or irritation of a mucous tract, and having for its object the removal of the impediment. “Let us apply this principle,” says the writer, “to the explanation of stammering. The sufferer attempts to speak—is unable to do so, possibly from stricture of the fauces, and forthwith all the respiratory muscles are thrown into violent action. The face is contorted, the shoulders raised, the abdominal muscles act forcibly in attempting to raise the diaphragm, and the rectus muscle has been even said to have been ruptured by the violence of the exertion. If the attempt to speak prove ineffectual, the whole body is convulsed, violent pains are felt in the chest, and the effort is obliged to be relinquished. It is in these cases, violent as they are, that the most marked improvement is occasioned by operative means. May not the spasmodic action of the lips, evident in some cases, be considered as a part

³ Vide Pages 11, 12, 46, and 47.

of the action excited by the shutting up of the fauces, rather than as being itself the cause of stammering?"

A spasmodic closure of the fauces cannot be the immediate cause of interrupted utterance; but, like the lips, &c., it is the effect of an untimely furling up of the velum. This, I repeat, occasions derangement of the action of the lips, the dorsum, and all parts of the tongue, which, perhaps, finally, produces a spasmodic closing of the glottis. This process, I can easily believe, from the able elucidation of the respiratory system of Sir Charles Bell, apparently changes the muscles of respiration to those of volition, and, in every effort to speak, produces a faulty train of movement of the organs of speech altogether; whence the lungs, for a time, cannot perform their office, as organs of respiration; the breathing, consequently, is broken, and, for a second or so, stopped; the countenance is figured with distortion⁴, and *thus* "the whole body is convulsed, and violent pains are felt in the chest;" the larynx necessarily becomes disordered, and the voice, both with respect to its quality, quantity, and force, is materially modified; it is defective and uncertain, and sometimes, for a second or two, or even a minute, perhaps, broken and lost.

From the character and description of the surgical operations on the uvula, tonsils, soft palate, &c., in the cases as published in "Stammering and other Imperfections of Speech," the results are such as might have been expected; and like the hypothesis of a closed glottis and collapsed lungs, so will be the fate of that of the "isthmus faucium⁵." A few years ago, a drone sound was recommended to be used as a prefix to words, for the sake of preventing the closure of the glottis,

⁴ "The organs of respiration are not the organs of breathing merely, but also organs of natural and articulate language, as well as organs of the language common to all nations, in the workings of the countenance and of the breast, that is, by signs addressed to the eye; and I am led to conclude, that the distorted motions of the face of the stutterer are indices of the uneasiness of his mind, to signify that the organs of utterance, at the moment, are incapable of appropriate and orderly motion."—Vide First Letter to Sir Charles Bell, p. 5. "The respiratory nerves are organs of expression, from the smile upon the infant's cheek to the last agony of life." "These nerves are not the organs of breathing merely, but of natural and articulate language," &c.—Philosophical Transactions, A. D. 1822 and 1829. Papers, Sir Charles Bell.

⁵ By the way, this expression oddly conveys the meaning of the Author of "Stammering and other Imperfections," &c., page 20.

and, consequently, the recurrence of the impediment; and it was confidently said, that the cure was infallible; so, also, was it affirmed of another mode of removal, viz. "the expiring of words with considerable force," which was confidently declared to be so effective, and so easy of execution, "that were it not for the sake of saving trouble, it would be of little consequence whether children contracted the habit of stuttering or not." These methods have now sunk into oblivion, and such, ere long, will be the fate of the experiments and operations on the tonsils, the soft palate, the palatine arches, and the severe operations of Dieffenbach on the tongue.

April 5th, 1843.

Being thoroughly convinced of the mischief, and the destructive tendency of surgical operations in cases of impediments of speech, I had written thus far, when it suddenly occurred to me, that inquiry into the cases, as set forth in the pamphlet of Mr. Yearsley, would be desirable. In order to be fully assured by positive proof of the perfect validity of my theoretical objections, I resolved, before I proceeded further, to select a few names, out of the published cases, and call upon the parties⁶. The following is an accurate copy of the case of James Woodruffe, as reported by the surgeon of Sackville-street.

“James Woodruffe, aged thirty, 15, Martin-street, Blackfriars, stammered since eight years of age. Stammered very much indeed; sometimes was unable to speak at all; the tongue protruding considerably in the attempt to speak: ‘L’ was the most difficult sound to pronounce.

“On February 7th, a gentleman, who is a follower of Professor Dieffenbach, had divided the muscles of the tongue. The wound had quite healed.

“March 12th. Uvula removed, with instant benefit to the voice. He immediately spoke with much greater freedom than before.

“March 17th. Has continued improving since the time of the last operation. The palatine arches were this day divided with still further relief.

⁶ I attempted to see George Bakewell, No. 2, Gloster-street, Vauxhall Walk. According to the printed statement of the author, this man had a *slight* impediment, and for its removal an operation was performed on the *soft palate!* What could justify the risk of interfering with the organ which stops up the nasal cavity, for the cure of a *slight stammer?* The question is unanswerable. Arriving at the rookery of poor dirty hovels, I learnt that the man was dead, and that the widow had gone to live at Kennington. I proceeded to Hart-street, Kennington, but Mrs. Bakewell had unfortunately gone to Clapton; a little girl, however, said her father was dead, but she did not know how it happened, but believed “there was something the matter with his chest.” It was my intention to see ten or fifteen other cases, and to call upon widow Bakewell the first moment I had to spare: I have not yet done so, nor do I now conceive it of any importance, as two cases, and also the instances of Woodruffe and Briggs, whom I saw on the day that I went to Vauxhall and Kennington, are quite sufficient to exemplify the value and force of my theoretical objections to surgical operations on the throat for the cure of stammering and stuttering.

“ March 21st. Considers that my first operation afforded the most decided benefit. To-day I divided the right anterior pillar of the fauces, which appeared to afford some relief.

“ March 28th. Very much improved; can converse tolerably well. There is a very large amount of improvement since his first application.”

The above account was published in 1841; and in this month, April 5th, 1843, I called upon James Woodruffe. His case, at this present moment, is one of the most aggravated and confirmed instances of stuttering I ever witnessed. From himself, I learnt that he caught the impediment from a stuttering schoolfellow, by jeering and mocking him—a circumstance, any one would think, that might have stayed, in some degree, the operator’s instrument; and, further, after a partial concession⁷ in favour of the practice of Professor Dieffenbach, I cannot make out upon what ground, or even plea, poor Woodruffe was teased and tortured subsequently to the operations on the tongue, at three different periods.

Upon putting the question to the afflicted stutterer, “ Do you conceive that the operations have done you any good?” “ D-d-d-d-m-m-m-m-n-n-no, Sir, a-a-a-e-e-e-g-g-g-k-n-n-oo-oo-oo-o-ee—its all i-e-e-p-m-posture; a-a-a-and I-I-I-sh-sh-h-s-show it.” The wry motions and contortions of the sufferer, which accompanied his faulty speech, were agonizing to witness. Any one interested in the inquiry may see this individual, James Woodruffe, pipe-maker, near Martin-street, Blackfriars.

“ One of the earliest cases,” writes Mr. Yearsley, page 8, upon which I operated, was a respectable young man, named Butler, living at 14, Tottenham-street, Tottenham Court Road. I give a narration of the case here because the operation was witnessed by some of the members of the Westminster Medical Society. This patient is twenty-four years of age; his stammer had existed sixteen years, and was invariably aggravated by easterly winds or wet weather. The impediment was, in this case, most severe and painful to witness; he frequently felt himself impelled to strike his hand forcibly

⁷ Vide page 23.

against his side to assist the vocal effort; he rarely spoke without ducking his head forward so as to bring it nearly to a right angle with his chest. I removed the uvula, and the relief was instantaneous. Upon asking him how he felt, he raised his head and answered, 'Pretty well, sir.' After a moment's surprise at the readiness with which these words escaped him, he sprang up from the chair, exclaiming, 'Oh, sir, I feel I can hammer away now.' He talked afterwards with the gentlemen present without difficulty, and with only the most trifling hesitation. A few days after the operation, he received intelligence of the dangerous state of a near relative, which deeply affected him, and, for a time, occasioned a slight return of the impediment; but this speedily passed away, and he may now be pronounced quite free from his former malady."

Without entering into the merits of this extract, I merely affirm (what I have been told) that the above individual spoke, six months ago, as badly as ever. He has now left Tottenham-street, and is, I understand, still a confirmed stammerer.

Under an impression that I ought to have another case, I resolved upon fixing upon one of different character from either James Woodruffe or Butler, and I decided upon William Briggs, Gate-street, Lincoln's-Inn-Fields.

The following is the case correctly quoted.

"William Briggs, 11, Gate-street, Lincoln's-Inn-Fields: stammering in this case had existed from early childhood. He is now nineteen. Great difficulty in pronouncing the labials and gutturals. Always felt an obstruction in the throat, and pain in the chest, on attempting to overcome it. Four years ago had been treated for six months by a teacher of elocution, with slight improvement at the time, but afterwards became 'as bad as ever.' He shook his head convulsively from side to side, and had violent actions of the muscles of the face while attempting to speak.

"March 9th. The uvula was removed. Felt instant relief; and that the impediment had disappeared from the throat. He was able immediately to pronounce difficult words, as 'teetotaler,' 'Peter Piper,' 'memento,' which before the operation had been very painful, and almost impossible.

“ March 14th. Has felt himself daily improving in the use of the voice. A friend who came with him bore testimony to the evident and remarkable benefit he had received. When asked to imitate the convulsive movements of the head and neck, he replied that he ‘had forgotten the way.’ There had been no return of the motion accompanying his former utterance.

“ March 21st. Reports that he has not been quite so well for the last two days, but is better this morning. The palatine arches being very strongly marked, I divided them with the effect of giving him still further relief; but as the tonsils are enlarged, I purpose on a future day to remove them.

“ March 27th. Reports himself improving from day to day, so that the excision of the tonsils is deferred.

“ March 30th. The improvement still continues.”

In calling upon this person, I found him and his companion busily employed at their lathes, and apparently in good health and spirits. Upon asking for William Briggs, he presented himself, and spoke with tolerable fluency, which, for the moment, induced me to believe that I had met with an example different from that which I have just quoted; but during this seeming evolution of circumstance, Mr. Briggs began to boggle, and splutter, and continued boggling and stuttering till I left the house. Supposing I was an operator, and that I wished to re-torture her son, Mrs. Briggs was exceedingly wroth and even affronting, nor, apparently, could she be pacified during my short sojourn in Gate-street. At intervals, his work-mate informed me, that he himself is also a stutterer; but the man expressed himself so completely convinced of the insufficiency of the system, that he would endure anything rather than submit to an operation.

William Briggs, therefore, is still a confirmed stutterer. Doubtless the causes of the infirmity are those of nasal and labial stoppages, converting the muscles of respiration to those of volition. The case would require sound educational theory, which, according to the description given in the printed reports, prior to the operation, I have no doubt had been offered; but to that should have been added *time* and *steady practice*.

Now let us direct our attention to the testimony of the Author of the "Stammerer's Hand-Book," an anonymous advocate for a school of surgery for operations on the uvula, tonsils, soft palate, the frænum of the tongue, and that of the lower lip, with moxas and blisters over the pomum Adami.

"Though the failures have, acknowledgedly, been numerous, cures have undoubtedly been effected by the severe and now abandoned operation of Dieffenbach; by the sections of the 'genio-glossi' muscles, performed by Velpeau, Amussat, Baudens, and others in France, and by Mr. Yearsley in this country, in excising the uvula and enlarged tonsils.

"No one has attempted with any success to point out the particular kind of impediment in which each operation is indicated, and probably it is impossible to do so, as relief, or no relief whatever, have followed indiscriminately without any apparent rule, in the same description of cases, from operations entirely the same. Good has also been done in cases presenting similar features, by the most dissimilar means."

Here let it be asked, what unfortunate individual, with the eyes of his understanding wide awake, would or could submit to be cut and slashed, without any apparent rule to guide the operator's knife?

"The severity of the operation," continues "*A Physician*," "does not afford any measure of the success to be expected. For instance, Dieffenbach's operation of taking a triangular piece out of the base of the tongue has been performed twice in London; of the termination of the first of these cases I am unaware, but the second I have examined, and found him to be precisely in the same state as before the operation."

With this difference, be it added, that the unfortunate stutterer is left to boggle away without the "triangular piece at the base of the tongue."

"On the other hand," continues the Author, "I have observed cases in which permanent good was afforded by merely dividing the frænum linguæ a little more deeply than is practised on infants when tongue-bound."

In correspondence with this observation, and yet in opposition to his own practice, the Author of "Stammering and

other Imperfections of Speech" names a respectable physician, who believes that much of the difficulty resides in lingual contractions, and has stated that he never saw a stammerer who could touch the palate with the tip of the tongue while the mouth remained open. "In disproof of this," affirms the author quoted, "of two hundred whom I have examined, not one presented the difficulty mentioned. When the tongue is at all bound down by the frænum, there may be a difficulty to enunciate a particular letter, as 'r' or 'th,' which has sometimes disappeared after the division of the frænum. This very day I have *instantaneously enabled a gentleman to pronounce the letter 'r,' without the slightest difficulty, by division of the frænum!*

"'Around the rugged rocks the ragged rascals ran,' remained no longer an impossibility, after the performance of this painless operation. I should, however, hesitate before I divided the frænum *with the intention of curing stammering.* I believe, that if performed to any extent, it would allow the tongue to go farther back into the throat, and thus increase the impediment."

"Who shall decide, when doctors disagree?"

With respect to the instantaneous benefit which was afforded to the gentleman who was unable to vibrate "r," by *merely dividing the frænum*, one or two words will suffice. It was a most extraordinary circumstance, that from merely cutting the bridle of the tongue, that vibrating action should at once be given to the appropriate part, the tip of it, against the palate, which, until then, had always been mute! If the operator mean to say that division of the frænum enabled the gentleman to touch the gums or the front part of the hard palate with the tip of the tongue, it can easily be comprehended; it was the natural consequence; but not so with respect to that continuity of motion which is necessary for the vibration of "r;" and there would be no difficulty in maintaining, that if an individual can protrude the tongue a half, or a little less, or at the utmost three quarters, of an inch, there is not, nor can there be, any occasion to divide the frænum. During the whole course of my observation and practice, did I ever meet with more than one instance where division was requisite; and

that was at Ealing School, in the case of a young gentleman of the name of Langton; and Mr. Cooper, a surgeon, resident at Brentford, a relation of the late Sir Astley Cooper, at my request, snipt the chord⁷. The youth was enabled instantly to touch the proper part of the palate, but not before a month or six weeks to vibrate "r." The fact is, the Northumberland *bur* is, sometimes, as obstinate as stammering or stuttering; and, except in a particular case, a division of the frænum is almost as injurious, though not quite so mischievous and prejudicial to articulation, as snipping and cutting the soft palate for the removal of stuttering.

Here it may be suggested that the greater part of solecisms and impediments originate in the indolence or ignorance of persons concerned in the management of children. But the mischief is not suffered to end here; for no sooner does the fond parent discover the thickness of the speech of her little boy, than a superannuated grandam declares, that "Master Edward is tongue-tied." The poor boy is then hurried away to the surgeon's, to have the frænum divided. This not answering the intended purpose, his tongue is pronounced disproportionately large. It is unnecessary to offer another remark: the conclusion is evident: and with respect to a division of the frænum, for the purpose of curing stammering or stuttering, it is an erroneous notion, and betrays excessive ignorance on the part of the operator; for, if the reasoning in the foregoing pages be of any weight—if it be entirely logical, there can be no connexion whatever between the frænum of the tongue and the causes and cure of stuttering.

To return.—In the 12th case, page 34, of "Stammering and other Imperfections of Speech," by James Yearsley, M.R.C.S., we read as follows:—

"Tuesday, March 16th.—James Bailey, sixty-two, Newman-street, Oxford-street, upholsterer, working for Miles and Edwards, stammered from infancy, accompanied by convulsive movements of the body, and to such a degree as to make him regardless of life. About two years ago, he found that, by a

⁷ Ten or twelve years ago, I remember to have met with an instance in a young gentleman, where there was an organic deficiency. Though he had no frænum, he was completely tongue-bound. Of course he could not be made to vibrate "r."

nasal insufflation, he could manage to say words, which before he altogether failed in doing, such as *captain, cork, cooper*, or words commencing with *t, b, &c.*

“Removed uvula with instant relief. On asking him how he felt after the operation, he answered me by saying, ‘Cork, cooper. Oh, sir, it is all right.’

“I have seen this patient since the operation, and his words flow with remarkable freedom.”

The nasal insufflation which enabled the patient to repeat certain words, may be received as a very fair reason why temporary relief might have been afforded upon removal of the uvula, which, *at the moment*,⁸ might have assisted the velum in unclosing the nasal passage and keeping it open. The same remark may apply in other cases, where partial benefit may have been derived from the removal of the uvula. Still the remedy, if *permanent*, would be almost equal to the disease, inasmuch as a destruction, or even only a partial destruction, of so important an organ as that which closes and uncloses the nasal cavity, must be detrimental to articulation.

Prior to the excision of the uvula, the individual could say “cork, captain,” &c., by changing the interrupted elements to continuous letters; or, in other words, “by a nasal insufflation.” The educational mode of cure of this person ought to have been self-evident: and it would have been so, if the operator had been aware of the cause why “insufflation” enabled the stutterer to say “cork,” &c. This case, however, is not an instance of cure, for the individual stutters now, it is said, as badly as ever.

But if it be admitted that, in one or two cases, temporary relief, by mere accident, may have been afforded by surgical operations, there are others, even according to the operator’s own showing, which are proofs to the contrary. And I cannot conceive what could justify the use of operative surgery in the case of the “silent impediment” of William Wilkins; for the cause of his defect is decidedly a simple closing of the glottis⁹: neither can I comprehend why the uvula was removed in the case of William Wilson, “who, sometimes, speaks fluently for a

⁸ I say *at the moment*, because, I am informed James Bailey still stammers; and it is two years since the uvula was excised.

⁹ Vide pages 15 and 16.

whole month together," "*without any assignable cause,*" and "then suddenly relapses." Finally, if relief ever arise in cases where the respiration is much affected, from an excision of the uvula, it must be occasioned, as I have so frequently said, from its connexion with the office of the soft palate in closing and unclosing the nasal passage.

But the gentlemen who *ought* to be most concerned in the PHYSIOLOGICAL and *philosophical* explanations respecting their surgical experiments, are the very persons who *seem* to be the least competent to give them.

From these premised facts,—I quote from the "Stammerer's Hand-Book,"—"it would appear that it must be by some indirect and secondary action that operations have proved serviceable. It is quite evident that it cannot be by *any local effect of the operations* on the *parts involved*; or, if it were, from the number of operations (!!) which have been performed, some rule of guidance in their selection would long since have been deduced. Looking at the subject in a *PURELY surgical point of view*, it is inexplicable why the section of the tongue, of the genio-glossal muscles, or the uvula, *should sometimes be of great service, and sometimes of none whatever.*" Again; from the same writer, "*The chances of cure by operative means are also so uncertain, that no one can be justified in recommending, or performing, any operations but those of the most simple kind, and which entail no present risk, or future inconvenience, on patients who choose to submit to them.*" Again:—"The cases for which operations are most adapted are those in which the various educational means have been tried, and found inefficacious."

This concession introduces the reader to "A Physician's" elocutionary attainments.

The educational process recommended by the Author of the "Stammerer's Hand-Book" appears to be as defective, I am constrained to remark, as are his "theories of the essential nature of stammering," and his "surgical treatment." In these days of *exquisite refinement* we forget to count 1, 2, 3, 4, at a comma, semicolon, colon, and period; for what are vulgarly called stops are merely grammatical points; and though these points may be viewed as hints for pausing, they do not require the proportions of time as mentioned in Dilworth's

Spelling-Book, or even Pinnock's Catechism. The writer is to be told that there are many parts of a sentence which require rests and pauses of some length, where there are no grammatical points at all. This is called rhetorical punctuation. The half comma, advocated by the author, is quite ridiculous: and his respiratory feet of seven or eight syllables each are puerile and absurd: though one can hardly help smiling at the notion of introducing to the *poor afflicted stutterer* such polysyllabic vocal and respiratory "soft nonsense!"

"The proper, *study of*, mankind, is man."

Who could have thought of stopping or taking breath before and after such a fasciculus of words as "*study of*," save and except the Author of the "Stammerer's Hand-Book?"

"When an impediment at a certain letter or letters is a prominent feature of the stammer, which is often the case," sagaciously remarks the author, "both at vowels as well as consonants, a *modification of the rhythmical exercises is required*. The pupil ought first to exercise himself in pronouncing the individual letter or letters,"—(But how?)—"and then practise the repetition of each difficult letter several times in one breath," (!) "observing in every exercise to speak in regular time." (!!!) "As a further remedy, a set of alliterative exercises should be constructed, by forming sentences of several words, each beginning with the letter at which the greatest difficulty is experienced; thus taking advantage of—

"*'Apt alliteration's artful aid.'*"

Again:—from the same author, respecting the influence of rhythm on the voice and speech. "Rhythm appears to be natural to a proper exercise of the vocal organs. All those who are accustomed to speak long together adopt the rhythmical measure. This is especially the case with clergymen, barristers, and actors; it is easy, during their oratorical exertions, to beat *regular time in perfect keeping* with their delivery. From having the subject deeply impressed on my mind, through its connexion with stammering, I have frequently, when listening, found myself keeping time unconsciously. *Those who do not speak in this manner soon become fatigued, while a practised*

speaker is enabled, through its assistance, to speak for several hours, without any great exhaustion."

In this place a hint is indispensable:—Physiological writers have given another and a better reason why those clergymen, barristers, senators, and actors, who manage their voice with frugality, are enabled to speak for a length of time without fatigue, and without great exhaustion: and, on this point, I am not aware that I can offer more wholesome and salutary advice to the Author of the "Stammerer's Hand-Book," than to recommend a careful perusal of the paper on the organs of the human voice, in the Philosophical Transactions, 1832, written by Sir Charles Bell.

This conducts me to an ulterior object of these papers. I am to show further, that surgical operations on the tongue, on the uvula, tonsils, &c. are not immediately or necessarily, at any time, connected either with the cause or cure of stammering or stuttering.

I define stuttering to be an effort to speak under certain unfavourable mental impressions—under a real or supposed physical inability—that it is an effort to speak, without the proper use of the natural and efficient causes of fluent speech; that it is a struggle to accomplish, what, under particular circumstances, is decidedly impossible; that it is a deranged action of those organs of speech, which are assigned by nature for the utterance of the consonants called mutes, with a faulty effort of the will to prolong their sounds, like those of liquids and vowels.

It may be easily comprehended, that an injury or compression of the *par vagum* would produce difficulty of breathing, and consequently difficulty in speaking.⁹ And as a division of the recurrent branch of the *par vagum* would destroy the voice, and a division of the laryngeal branch of the *par vagum* would stop the consent of motion between the muscles of the glottis and the muscles of the chest, I can imagine that any defect or injury in either of these branches would proportionally affect and impede vocal utterance. With such physical irregularities, however, we have nothing to do, nor has it been my object, in these papers, to speak of impediments as connected with *positive organic defect*.

⁹ Vide Letters to Sir Charles Bell. Page 4, and note.

As the organs of respiration¹ are not the organs of breathing merely, but also organs of natural and articulate language, as well as organs of the language common to all nations, in the workings of the countenance and of the breast; that is, by signs addressed to the eye, as well as by words addressed to the ear, I am led to conclude, that the distorted motions of the face of the stutterer are indices of the uneasiness of his mind, to signify that the organs of utterance, at the moment, are incapable of appropriate and orderly motion; and also, that whatever is likely to improve the faulty and contrary *breathing* of the stutterer, and to correct his contortions of countenance and wry motions of the body, must help him to throw off his impediment, and to give him confidence to speak without either mental or physical interruption.²

In the foregoing sheets it has been my object to show, that in articulate language an orderly and prompt action of the *velum pendulum palati* is intimately connected with orderly breathing, and consequently with continuous and fluent speech.

The stutterer is perfectly sensible that he can read and repeat from memory better when he is entirely alone, than when he is before a stranger, or even any one of his own family; that he can speak generally with greater freedom of utterance to those who are his inferiors, than to those who are above him; to those who are younger, than to those who are older than himself. Hence some persons have contended, that stuttering arises, more or less, from nervous irritation. But no one, however endowed, and however fluent in his speech, is, at all times, and upon all occasions, able to exert his power and faculties, and to choose familiar and proper words or expressions, and give utterance to them, with equal ease and equal advantage, even in the most healthy state of his body and mind. The stutterer is as much liable to this mental *hiatus*, this breach of continuity of thought, as other persons. All speakers may be said to be, more or less, *mental stammerers*, but different persons (those who stutter and those who do not) use different modes of covering or hiding these inter-

¹ Vide Letters to Sir Charles Bell. Page 5, and note.

² Ibid. to the same Author.

ruptions of mind. Some persons accomplish their object by verging off to other topics, and others by continuing to repeat hackneyed expressions, such as "Let me see,"—"What was I saying?"—"My memory is so treacherous," &c. until the subject return to the mind.

"If it live in your memory, begin at this line; let me see, let me see;—

The rugged Pyrrhus, like the Hyrcanian beast.

—'Tis not so; it begins with Pyrrhus.—

The rugged Pyrrhus,—he whose sable arms," &c.—Hamlet.

The grosser and more palpable stammerings of mind are discovered among rapid speakers by frequent and continued iterations and substitutions of letters, by repetitions of words, phrases, and sentences; and amongst slow, deliberate speakers, they are known by filling up the interstice, or vacuity of thought, by a short pause, and by a liquid or unarticulate vowel sound, in something like the following manner:

I-have hitherto-*u* (*r*) (*u*-th-ough not always, yet not unfrequently) found *u*-that *u*-what pleased me for a while, was soon after disgraced by some further or new experiment. And indeed,-*u*(*r*) I have the less envied-*u*-many (for I say not *all*) of those writers-*u*-(*r*) who-have taken upon them to deliver the causes of things³, and-*u*(*r*)-explicate-*u*-the-*u*-mysteries of nature, *u*-since-I have had the opportunity-to observe how many of their doctrines, *u* (*r*) after having been for a while applauded—and even admired—have afterwards been confuted -*u*-by-some-new phenomeuon in nature, which was either unknown *u*-to such writers, or *u*-not sufficiently considered by them.

This manner of speaking is exceedingly common; and it may be safely inferred, that there are few, very few persons, who utter their thoughts in conversation, *without occasional mental stammering*. With respect to the confirmed stutterer, his mind, whenever he attempts to speak, is instantly alive, as it were, and upon the stretch; the confirmed stutterer is all anxiety, *he is intensely liable to frequent mental stammering, and he endeavours to hide it by incontinuous speaking or stut-*

³ This mental stammering (to which all persons, stutterers or not, are liable) is frequently occasioned from not being able readily, or at the moment, to choose or recollect a word correspondently expressive of an idea.

tering. But the causes of mental stammering, whatever they may be, should not be confounded with nervous irritability. Neither is nervousness, any more than a closed glottis, to be received as the cause of stuttering. Stuttering, doubtless, causes, and afterwards increases, nervousness; on the other hand, nervousness, so caused, increases stuttering; and in proportion to the quality and quantity of hesitation, so, at all times, seems to be the nervousness of the stuttermg. But prove to him that he is really able to speak, show him how to speak, analyze to him speaking sounds and vocal utterance, explain to him his faulty use of the organs of speech, and teach him how to correct it, and, finally, give him confidence in his own ability to speak,—do this, the nervousness will be partly conquered, and the work, in a great measure, will be achieved.

The grand points for consideration, antecedent to, and during elocutionary training, are these: the comprehending of the difference between common breathing and that in speaking, the efficiently exercising and vocalizing of the breath, the combining of the murmur from the glottis with the action of the pharynx, the timely action of the velum, and the timely distension and contraction of the pharynx.

It may be explained to the stuttermg that the velum, the organ which closes and uncloses the nasal passage, can be exercised by practising *M* or *N*; and, afterwards, by prefixing a labial or dental mute, thus: *Bman*, *Dno*, *Ndno*, *Mbman*. *Op'n* (*open*), *tak'n* (*taken*), and the vulgar pronunciation of *certain*, viz. *cert'n*. It may be shown him that the distension and contraction of the pharynx can be exercised in practising the murmur which precedes the utterance of the middle mute letters. In his initial practice this is one of the greatest difficulties with which the confirmed stuttermg will have to contend; *i. e.* to combine the murmur of the glottis with the action of the pharynx, while the velum pendulum palati is furled up, and the lips of the mouth are closed. Let this be accomplished, by efficient training and practice, the lips, in time, will become manageable, but not before. My advice is to practise the soft or sibilant labial mute *P* first, as elucidated in the Second Letter to Sir Charles Bell; and, afterwards, the middle, or vocal labial mute *B*; in the former

practice, the velum will be furled up, the pharynx distended, and the chordæ vocales will be quiescent; in the latter, the practice will be more difficult, because in addition to the actions of the velum and pharynx, the chordæ vocales must be brought into play. This being completed, the remaining mutes can be tried.

The exercising of the organs of speech properly, constitutes what is termed distinctness of pronunciation. The mouth must be fitly and suitably opened for the utterance of each vowel. Every appropriate organ must promptly perform its office for the articulation of a consonant, especially of a final consonant; and the lungs and larynx must supply each consonant with either a whispering or an audible sound. To attain an easy articulation of the consonants, may be recommended, and that strongly, the plan adopted by Sheridan, the practising of them with a vowel preceding each, as *ab, ac, ad, &c.*, by which means it will not be difficult for the student to judge of the respective power of each consonant.

Without any danger of being confuted, it may be said, that the vocality of language is altogether dependent upon a clear and distinct utterance of the vowels. Each or every modification of a vowel demands an appropriate aperture, or opening of the mouth, and a free use of the jaw. One aperture cannot be substituted for another. Signor G. Lanza, an ingenious and celebrated Italian singing-master, introduced, a few years ago, a very useful method for the guidance of his pupils in vocal music, in respect to the sounding of the vowels. He attached to the words of the Solfeggio, *do, re, mi, fa, sol, la*, pictures or plates showing the proper apertures of the mouth. Having witnessed the beneficial effects of the system in several instances, the author is enabled to say, that the scheme of G. Lanza, as far as it goes, is applicable to the purpose of the stuttrer, in this department of his practice.

Before the pupil can derive benefit from elocutionary law respecting respiration, he must be content to divide words in oratorical portions, and submit to the practice of taking breath between each of them. Afterwards, and in order that he may know and learn how and at what time to breathe, when he is reading a sentence, and, subsequently, when he is endeavouring to express his own thoughts to others, he should first

diligently watch the pronunciation and delivery of such gentlemen in private life, as are admired for their simplicity of diction, and slowness and deliberateness of utterance. It would be discovered that all eloquent speakers have *one uniform* method of *pausing* and of *taking breath*; that, when engaged in discourse, they seldom or never breathe through the nostrils, but almost always through the mouth. If a speaker, answering the above description, were to be asked, "Where he should consider it proper to take breath, in reading and speaking?" the answer would be, "Where I have time;" viz. "at the beginning and the end of a period, and at any place in a sentence where there is a rhetorical pause." In the following sentence, a good reader or speaker would pause, or take breath, immediately after the word "operations;" he would also pause after the words "power," "reason," "useless," and "unemployed;" so that, if requisite, he might take breath at any of the above places.

"As the excellence of every power | appears only in its operations, | not to have reason, | and to have it useless | and unemployed, | is nearly the same."

In the first instance, the stutrer may and ought to take breath more frequently than this. Still it would not be advisable to stop in the middle of a word; and as there are combinations of monosyllabic parts of speech in sentences, which are pronounced and accentuated precisely the same as individual polysyllabic words, so likewise, in the middle of such combinations it would be equally improper to take breath; yet *between* such combinations, and also words which have no enclitics, breath, at all times, if required, may be taken. The following sentence is pronounced as *if* there were only three words or parts of speech. "*Truth | is the basis | of excellence.*" *Before, between, and after* each, breath may be taken, if *requisite* or *convenient to the stutrer*. This, and lengthening the vowel sounds, is the true prose rhythmus, which may be safely recommended. The article is joined to its noun, and the preposition to the part of speech to which it belongs; and the sentence so pronounced, a foreigner or stranger to the language would suppose that only three entire words had been uttered; he would recognize "*truth*" as a word of one syllable, with the accent upon it;

“*is the basis*,” as a word of four syllables, with the accent on the penultimate; and “*of excellence*,” as a word of four syllables, with the accent on the ante-penultimate; the whole bearing a close resemblance to the three following parts of speech: “*Paul reprehendeth intemperance*.” In this sentence, if convenient or required, breath may be taken before, between, and after each word; but in correct and easy speaking, it would be highly improper to take breath in the middle of “*reprehendeth*,” or “*intemperance*.”

It will now be convenient to touch upon one or two material circumstances connected with the larynx, and the accentual inflections of the voice.

Every word of more than one syllable, *individually pronounced*, is accompanied with percussion, called accentuation. If the accent be placed on the first syllable, each single

word exemplifies one inflection of the voice, viz.:

châstity,
pōpular,
prēference.

If the accent be placed after the first

tēperance,

syllable, each single word exemplifies both the rising and falling inflection of the voice, altering at the accent, thus:

dēmon-
strātion.

Though the stutterer need not at first be troubled with elocutionary nicety, still here it may be as well to explain that every successive accent (secondary as well as primary,) exhibits to the ear a fresh inflection of the voice; and as the larynx must of necessity be instantly affected before an accentuated syllable (secondary as well as primary) can be uttered, it will be useful for the student to give his attention to the following exemplification. Adverting to the word *accentuation*, and listening to the pronunciation of it, we find that the voice naturally adopts alternate inflections of voice

thus: *āc. cēntu-ātion.* But if the same word, *āc. centu-ātion*

occur in a sentence as the nominative to a verb, the accentuated syllable would as naturally adopt the contrary inflection.

Now if these minute slides and varieties of voice are to be produced only by correspondent actions of the larynx, and if such actions in speech are more complicated than those which are required in vocal music, we are furnished with a true, philosophical reason why the stutterer can more easily sing than he can speak⁴.

When the voice begins to set, or, as it is sometimes termed, "*break*," all young persons, those which speak with fluency of speech as well as those who do not, lose, in a certain degree, their command over the larynx: for a time they cannot sing with any tolerable certainty, either as to quality of tone or accuracy of note. In some instances, not only during, but also after the setting of the voice, the larynx continues unable to obey the ear; and in a few other instances, after the setting of the voice, the vocal chords are so deranged as never afterwards to be capable of producing regular musical actions. Some years ago I knew a celebrated pianist, whose ear was, and continued to be, exquisitely delicate, but whose *voice* was discordant and anomalous in a very high degree. Before the breaking of his voice, he could sing very well; but after it, he was unable to sing two notes of the simplest air that could be chosen, in tune. Now, what must of necessity affect the larynx of all young persons, must equally affect that of the stutterer; and as speaking sounds are more complicated than those in music, it will be easily conceded, that when the voice of the stutterer begins to alter or *set*, his impediment is in great danger of being firmly rooted in what might be termed an *organic defect* in the *vocal chords*. This may be one reason, among many others, why it is sometimes more difficult to remove the confirmed stuttering of adult persons, than that of children.

In concluding my papers, and avoiding needless repetition, I beg, in the first place, to refer the student to my "*Letters on Impediments of Speech*," for more minute and particular elucidation; and, in the second, to present the reader with the following cases, which will prove the tangibility and strength of the doctrines which have been propounded.

In the late Mr. Julion, of Lambeth, the reader has an instance of an impediment of speech arising from the usual

⁴ Vide pages 11 and 12.

causes, and confirmed into a habit by improperly exercising the larynx. By vigilance of observation, by patience, industry, and perseverance, he cured himself, and thence proceeded to cure others. His system, to use, I am told, his own expression, was "to make a voice;" which seems to be nothing more or less than to imitate the speaking of one particular class of mental stammerers; viz. the sounding of, and dwelling upon, the vowel *u* as in *urn*, as a prefix to words, in something like the following manner: "U - - - there - is - u - a - vigilance u - of - u - observation, and - u - accuracy of - u - distinction (and so on), which books and precepts cannot confer; and from this, almost all original and natural excellence proceeds." It may here be remarked, that this practically resembles the application of the system of Dr. Arnott; while in respect to the *glottis*, the intention is different. In some cases the plan of Mr. Julion succeeded. The exercising of the voice, and speaking slow, are very important points; but certainly, as a system for the removal of other cases of stuttering than those which are occasioned by a defective action of the *chordæ vocales*, "the making of a voice" must, though a very useful auxiliary, prove insufficient. It did prove to be so; for in many instances, which came under the superintendence of Mr. Julion, it failed. Any individual, however, who labours under an impediment of speech should read this account respecting the late Mr. Julion with peculiar interest; it should be viewed as a useful and important lesson for the stuturer to con by rote. The above individual was vigilant and observing; he was patient, industrious, and persevering. He certainly cured himself, and subsequently succeeded in curing other stuturers, whose case corresponded with his own.

We have two other remarkable cases of impediments in father and son. The former, like Mr. Julion, cured himself; but the latter, deficient in the most essential qualifications, vigilance, industry, and perseverance, failed. The father was accurate in his conceptions; his judgment was good. His case, probably, did not reach the second class of stuttering. He discovered that slowness and deliberation in speaking are material points. He found relief, and resolving to persevere, finally succeeded. "Old A——b is beginning one of his stories: I'll be off," were hackneyed expressions, I am told,

whenever he began to narrate a circumstance. Having frequently heard the late Mr. A——b speak, I am enabled to say, that there was nothing peculiar in his utterance, nothing remarkable,—more than that it was very, very slow; he spoke very deliberately upon all occasions, but without the slightest discordance or unpleasantness of drawl. The son grew up a stutterer, and continued so till his death. This case was remarkable. The son found no difficulty in reading, in repeating, or indeed speaking, except on certain occasions. This was caused, probably, by the uvula, which was elongated; it consequently touched, and, frequently, dragged upon the dorsum of the tongue. He spoke by reversing the order of nature, *while the air was passing through the mouth into the lungs*. Like his father, he was not defective in energy, thought, or physical capability; but in observation, judgment, patience, and perseverance, he was altogether deficient. So that probably, while he seemed disposed to listen to advice, and to see the propriety of eulogizing a plan which succeeded in one whose judgment he respected, still he himself could not be prevailed upon to follow it. This gentleman actually kept at one time pebbles⁵ in his mouth, till being compelled to swallow the greater part of them, he “s-p-pat the re-e-e-est out of his mouth.” Now the circumstance which occasioned the above individual to swallow the stones, though not the original, was, nevertheless, probably, the ultimate cause of his confirmed stuttering; because he could read, he could repeat from memory, and speak as well as most persons, excepting on particular occasions,—upon occasions, when if he had had pebbles in his mouth, he would, in all probability, have swallowed them. Speaking himself out of breath, as it were, his lungs became collapsed, or partly so; and uttering a few words for a second or so, while the air was passing through the mouth into the lungs, he thus reversed the order of natural utterance. The system of cure was plain, easy, and self-evident.

Twelve years ago a pupil of an eminent surgeon, at St. George's Hospital, occasionally visited me, who stuttered.

⁵ It is said that the Grecian orator stuttered, and that he cured himself by speaking with pebbles in his mouth. The learned, however, are not by any means agreed, whether or not the impediment of Demosthenes was a stutter.

The uvula was so elongated as constantly to touch or drag upon the dorsum of the tongue; but excision was neither named nor even thought of. One of the remedies was the taking of breath at proper intervals, and learning to vocalize it. Now it is a well-known fact, and a generally admitted circumstance, that full inspirations will enable any one to raise the uvula, and to lower the tongue at its dorsum, however widened or enlarged in volume. Elocutionary gymnastics, therefore, in resting, pausing, and breathing, and in properly exercising the vocal chords, the use of steady means for the ready and adroit management of the velum, and the timely distension and contraction of the pharynx, enabled the above individual to enunciate with ease. Four years ago, the last time I saw this gentleman, he spoke without hesitation.

But further, and in conclusion; the foregoing remarks will receive additional proof that they are philosophical and conclusive, and that the theory is practical, by the two following opposite instances.

Prior to their residence at Grove Hall, both of the young gentlemen, whose cases and cure I am going to mention, were inveterate stutterers, exhibiting all the external signs of contortion of countenance and spasmodic appearances. I select them from other pupils now boarding in my Educational Establishment, to exemplify the error and impropriety of surgical operations on the tongue, the frænum, the soft palate, the uvula and tonsils, in cases of, stammering and stuttering. One of them has been a member of my family for some time, the other only for the short space of two months. The former is eleven years of age; his organs are well formed; the uvula is not more than the usual length, and the tonsils are not in the least enlarged. During the whole of his residence with me, his health has been remarkably good, and he is of a cheerful and happy disposition. Notwithstanding all these advantages, the case of this young gentleman has been tedious to manage and difficult to control: but I am happy to say that now he speaks with perfect freedom; he is still a pupil, and continues to reside in my family. The age of the latter is less favourable; he is nearly sixteen; he has been at several first-rate mixed schools, where the infirmity, as a circumstance of course, was neglected. At his introduction to me, the impe-

diment was an aggravated instance of neglected stuttering. In this young gentleman, the uvula is much elongated, and the tonsils are very considerably and uncomfortably enlarged. Though he has been *en trainé* only for two months, this youth speaks now as well as the other. At this moment neither of them hesitates in the least; and while each is proceeding with his classical, mathematical, and general studies, elocutionary attainment is still regarded as a principal and important point of attention: and thus the constant practice of speaking with care, circumspection, and watchfulness, is continually fixing the newly acquired method of reading, speaking, and conversing, into mature habit and cultivated nature. Both of them practically comprehend all the points of discussion in the preceding parts of these papers; and their good sense has taught them the propriety of the elucidations. They know from experience, that by care and attention their *confidence to speak is constantly gaining* strength, which, after all, in the opinion of surgeons and sensible men, is the grand point of achievement, in the removal of an impediment so formidable as stuttering. Once more, and finally, by proving to the stutterer the *cause* of his impediment, by showing him *how to overcome his faulty habit*, and convincing him of his physical ability to conquer the error, and mildly persuading him to use vigilance of observation, and constantly to put in practice what is scientifically and philosophically propounded,—then, I repeat, any stammerer or stutterer so circumstanced is sure, morally speaking, to obtain a *well-grounded confidence* in his ability to read, to speak, and converse with a quiet suitableness of expression and fluency of utterance.

THE END.

